
North Eastern	Balrampur, Gorakhpur, Naugharh, Rajgir, Raxaul, Sarnath, Katgodam
Northeast Frontier	Barpeta Road, Darjeeling, Guwahati
Southern	Bangalore, Cochin, Kanchipuram, Mysore, Chennai Central, Chennai Egmore, Madurai, Pondicherry, Tanjavur, Tiruchurapalli, Trivendrum, Rameshwaram, Udagamandalam, Chidambaram, Kodaikanal Rd., Kottayam, Pichavaram
South Central	Aurangabad, Bijapur, Hospet, Madgaon, Secunderabad, Talguppa, Badami, Tirupati, Warangal
South Eastern	Bhubnaneswar, Puri, Ranchi, Cuttack
Western	Abu Road, Agra Fort, Ahmedabad, Bharatpur, Chittaurgarh, Dadar, Indore, Jaipur, Palitana, Sasingir, Udaipur, Veraval, Ajmer, Alwar, Bhuj, Bhavnagar, Dwarka, Jamnagar, Kota, Sawai Madhopur, Surat, Vadodara, Porbandar

Upgradation of Technology to Minimise Accidents

2288. SHRI VIJAY J. DARDA: Will the Minister of RAILWAYS be pleased to state:

- (a) what are the details of rail derailments and accidents during the last three years, zone-wise;
- (b) whether Government have recently reviewed safety measures on Indian Railways and the reasons for failure of safety system;
- (c) the details of action taken to curb the number and rate of accidents, through upgradation of technology in accident prone areas; and
- (d) the action plan for the present?

THE MINISTER OF STATE IN THE MINISTRY OF RAILWAYS (SHRI DIGVIJAY SINGH): (a) The Zone-wise details

of consequential train derailments and accidents during the last three years, i.e. 1997-98 to 1999-2000, are as follows:

Railway	Derailments	Accidents*
Central Railway	153	201
Eastern Railway	68	89
Northern Railway	119	182
North Eastern Railway	38	72
Northeast Frontier Railway	103	123
Southern Railway	137	173
South Central Railway	94	131
South Eastern Railway	124	170
Western Railway	66	98
Metro Railway	1	1
Konkan Railway Corpn.	15	16
Total	918	1256

*Accidents include Derailments also.

(b) to (d) Review of safety measures is a continuous process. There is no failure of safety system. However, Government always endeavours to improve safety. Railway Safety Review Committee was set up about two years back. The recommendations contained in Part-I of their report are under consideration. However, the following measures are being adopted to curb accidents through upgradation of technology:

(i) The work of track circuiting has been accelerated on the trunk routes and other important main lines. Track circuiting from Fouling Mark to Fouling Mark has been completed on A, B, C, D Special and D routes of Indian Railways, (ii) Modification of the signalling circuitry is being carried out to minimise chances of human error in causing accidents, (iii) Auxiliary Warning System for giving advance warning about 'Signal at danger' to the driver of the running train has been commissioned on Mumbai suburban sections.

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- (iv) There has been progressive increase in use of Tie Tamping and ballast cleaning machines for track maintenance, (v) For monitoring track geometry and running characteristics of the track, sophisticated track recording cars, oscillograph cars and portable accelerometers are being progressively used.
- (vi) Maintenance facilities for coaches and wagons have been modernised and upgraded at many depots.
- (vii) To prevent cases of cold breakage of axles, Routine Over Hauling Depots have been equipped with ultrasonic testing equipment for detection of flaws in the axles.
- (viii) Whistle boards-speed breakers and road signs have been provided at unmanned level crossings and visibility for drivers has been improved.
- (ix) Steps have been taken to prevent inflammable and explosive materials from being carried in passenger trains.
- (x) Training facilities for drivers, guards and staff connected with train operation have been modernised including use of Simulators for training of drivers.
- (xi) Walkie-Talkie sets have been supplied to Drivers and Guards on all trains.

Rail Accidents in Maharashtra

2289. SHRI SURYABHAN PATIL VAHADANE: Will the Minister of RAILWAYS be pleased to state:

- (a) the number of rail accidents which took place from 1997, till date, in Maharashtra;
- (b) what were the cause of each such accident; and
- (c) what preventive measures have been taken by Government to curb recurrence of such accidents?

THE MINISTER OF STATE IN THE MINISTRY OF RAILWAYS (SHRI DIGVIJAY SINGH): (a) The Railway accidents statistics are maintained Railway Zone-wise and not State-wise. Maharashtra State is covered by parts of Central Railway, South Central Railway, South Eastern Railway, Western Railway and